

WHAT IS CLAIMED IS:

1. An information processing apparatus comprising:
  - 5 visual line setting means for setting an arbitrary visual direction for a 3D model;
  - 10 attribution input means for entering attribution information so as to position said attribution information in said arbitrary visual direction set by said setting means; and
  - 15 storage means for storing said arbitrary visual direction and said attribution information in correlation with each other.
2. An information processing apparatus according to claim 1, further comprising:
  - 15 instruction means for instructing said arbitrary visual direction that is set; and
  - 20 display means for displaying said attribution information that is correlated with said visual direction designated by said instruction means.
3. An information processing apparatus according to claim 1, further comprising:
  - 25 grouping means for grouping a plurality of attribution information sets entered by said attribution input means; and
  - storage control means for storing said

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attribution information groups in said storage means with said visual direction set by said visual line setting means.

5       4. An information processing apparatus according to claim 3, wherein said storage control means stores said attribution information groups in correlation with different attribution information in a plurality of like visual lines.

10                     5. An information processing apparatus according to claim 3, wherein said visual line setting means sets different positions in the same visual direction; and wherein said storage control means  
15 stores attribution information in correlation with said different positions in the same visual direction.

6. An information processing apparatus comprising:

20                     three-dimensional data generation means for generating data for a three-dimensional object;  
                           visual line setting means for setting a visual direction for data generated by said three-dimensional data generation means;  
25                     attribution setting means for setting attribution information; and  
                           control means for storing said visual direction

set by said visual line setting means in storage means with said attribution information set by said attribution setting means.

5        7. An information processing apparatus according to claim 6, further comprising:

selection means for selecting a visual direction; and

10      display control means for displaying said object based on said visual direction selected by said selection means and attribution information correlated with said visual direction.

15      8. An information processing method comprising:  
a visual line setting step of setting an arbitrary visual direction for a 3D model;

20      an attribution input step of entering attribution information so as to position said attribution information in said arbitrary visual direction set at said setting step; and

a storage step of storing said arbitrary visual direction and said attribution information in correlation with each other.

25      9. An information processing method according to claim 8, further comprising:

an instruction step of instructing said

arbitrary visual direction that is set; and  
a display step of displaying said attribution  
information that is correlated with said visual  
direction designated at said instruction step.

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10. An information processing method according  
to claim 8, further comprising:

a grouping step of grouping a plurality of  
attribution information sets entered at said  
10 attribution input step; and  
a storage control step of storing said  
attribution information groups at said storage step  
with said visual direction set at said visual line  
setting step.

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11. An information processing method according  
to claim 10, wherein, at said storage control step,  
said attribution information groups is stored in  
correlation with different attribution information in  
20 a plurality of like visual lines.

12. An information processing method according  
to claim 10, wherein, at said visual line setting  
step, different positions are set in the same visual  
25 direction; and wherein, at said storage control step,  
attribution information is stored in correlation with  
said different positions in the same visual direction.

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13. A computer executable program product comprising:

code for setting an arbitrary visual direction for a 3D model;

5 code for entering attribution information so as to position said attribution information in said arbitrary visual direction that is set; and

10 code for storing said arbitrary visual direction and said attribution information in correlation with each other.

14. An information processing apparatus comprising:

attribution input means for entering attribution 15 information for a 3D model;

attribution allocation plane setting means for setting a virtual plane with which said attribution information is correlated; and

storage means for storing said virtual plane and 20 said attribution information in correlation with each other.

15. An information processing apparatus according to claim 14, further comprising:

25 attribution information allocation means for allocating said attribution information on a virtual plane set by said attribution allocation plane

setting means.

16. An information processing apparatus according to claim 15, wherein said attribution  
5 information allocation means allocates said attribution information in the normal direction of a virtual plane set by said attribution allocation plane setting means.

10 17. An information processing apparatus according to claim 14, further comprising:

display method setting means for setting at least one of a display information set, a display magnification, a display center and a display  
15 direction,

wherein said storage means stores, on said virtual plane set by said attribution allocation plane setting means, said display method information set by said display method setting means.

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18. An information processing apparatus according to claim 17, further comprising:

holding means for holding, together with said 3D model, said virtual plane set by said attribution  
25 allocation plane setting means and said display method information set by said display method setting means.

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19. An information processing apparatus according to claim 17, further comprising:

attribution information size setting means for, based on said display magnification for said display  
5 method information set by said display method setting means, setting the size of said attribution information base.

20. An information processing apparatus  
10 according to claim 17, further comprising:

display coordinate axis setting means for setting the horizontal or perpendicular direction on a display; and

display means for displaying said 3D model or  
15 said attribution information based on information set by said display coordinate axis setting means.

21. An information processing method comprising:  
an attribution input step of entering  
20 attribution information for a 3D model;  
an attribution allocation plane setting step of setting a virtual plane with which said attribution information is correlated; and  
a storage step of storing said virtual plane and  
25 said attribution information in correlation with each other.

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22. An information processing method according to claim 21, further comprising:

an attribution information allocation step of allocating said attribution information on a virtual  
5 plane set at said attribution allocation plane setting step.

23. An information processing method according to claim 22, wherein, at said attribution information allocation step, said attribution information is  
10 allocated in the normal direction of a virtual plane set at said attribution allocation plane setting step.

24. An information processing method according to claim 22, further comprising:

a display method setting step of setting at least one of a display information set, a display magnification, a display center and a display direction,  
20 wherein said display method information set at said display method setting step is correlated and stored on said virtual plane set at said attribution allocation plane setting step.

25. An information processing method according to claim 24, further comprising:

a holding step of holding, together with said 3D

model, said virtual plane set at said attribution allocation plane setting step and said display method information set at said display method setting step.

5        26. An information processing method according to claim 24, further comprising:

an attribution information size setting step of, based on said display magnification for said display method information set at said display method setting 10 step, setting the size of said attribution information base.

27. An information processing method according to claim 24, further comprising:

15        a display coordinate axis setting step of setting the horizontal or perpendicular direction on a display; and

20        a display step of displaying said 3D model or said attribution information based on information set at said display coordinate axis setting step.

28. A computer executable program product comprising:

code for entering attribution information for a 25 3D model;

code for setting a virtual plane with which said attribution information is correlated; and

code for storing said virtual plane and said attribution information in correlation with each other.

5        29. An information processing apparatus comprising:

            attribution input means for entering attribution information for a 3D model;

10      attribution allocation plane setting means for setting virtual planes with which said attribution information is correlated; and

            storage means for storing said attribution information in correlation with at least one of said virtual planes.

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            30. An information processing apparatus according to claim 29, wherein said attribution information is stored in said storage means in correlation with one of said virtual planes.

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            31. An information processing method comprising:

                an attribution input step of entering attribution information for a 3D model;

25      an attribution allocation plane setting step of setting virtual planes with which said attribution information is correlated; and

                a storage step of storing said attribution

information in correlation with at least one of said virtual planes.

32. An information processing method according  
5 to claim 31, wherein, at said storage step, said attribution information is stored in correlation with one of said virtual planes.

33. An information processing apparatus  
10 comprising:

attribution input means for entering attribution information for a 3D model;  
visual direction setting means for setting arbitrary visual directions with which said  
15 attribution information is correlated; and  
storage means for storing said attribution information in correlation with at least one of said visual directions.

20 34. An information processing apparatus according to claim 33, wherein said attribution information is stored in said storage means in correlation with one of said visual directions.

25 35. An information processing method comprising:  
an attribution input step of entering attribution information for a 3D model;

a visual direction setting step of setting arbitrary visual directions with which said attribution information is correlated; and  
a storage step of storing said attribution  
5 information in correlation with at least one of said visual directions.

36. An information processing method according to claim 35, wherein, at said storage step, said  
10 attribution information is stored in correlation with one of said visual directions.

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